

- MEGGITT, M. J. 1962. *Desert People*, Chapter 1. Angus & Robertson, Sydney.
- MOYLE, W. H. 1958. Plants used as Native Food. In Elphinstone, J. J., *Report on Health and Nutrition of Natives from Rawlinson Range to Lake Macdonald*.
- RATCLIFFE, F. N. 1959. The Rabbit in Australia. *Biogeography and Ecology in Australia*: 545-564.
- RIDE, W. D. L. 1960. The Fossil Mammalian Fauna of the *Burramup parvus* Breeceia from the Wombeyan Caves, New South Wales. *J. Roy. Soc. W. Aust.*, 43: 74-80.

AQUATIC BIRDS OF HAMELIN POOL LAKE WESTERN AUSTRALIA

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Situated at the southern end of Hamelin Pool in Shark Bay, Hamelin Pool Station lies just within the semi-arid rainfall zone which receives less than 10 in. per annum. Most freshwater lakes within this area have an ephemeral existence, being filled at infrequent intervals because of the irregularity and unreliability of the rainfall. Near the Hamelin Pool Station homestead, however, a permanent slightly brackish lake of about four acres and other smaller pools have been produced artificially by an overflow from a deep artesian bore which flows unheeked along drains through the station. Being the only expanses of permanent relatively fresh water in the district, during the hot summer they attract an abundance of aquatic birds including many waders and ducks. These reinforce the sedentary population amongst which are the Little Grass Bird, Reed-Warbler and Spotted Crake.

During visits to the locality on January 31, 1959, April 2, 1962, November 14-15, 1964, December 15-19, 1964, and December 19-20, 1965, several observations were made which add to the knowledge of the distribution of Western Australian birds, in particular two rare waders which were recorded on the November 14-15 visit in the company of Mr. John Dell. In the following list, dates on which the various species were actually recorded are given with the number present placed in brackets. Where no bracketed figure is given after the date, no count was taken. For the relevant scientific names, reference should be made to *The Birds of Western Australia*, D. L. Serventy and H. M. Whittell, third edition, 1962.

Around the margins of the homestead lake are several patches of bulrush, *Typha angustifolia*, and an extensive area of *Samolus repens*, while the entire perimeter is covered with samphire, *Arthrocnemum arbusculum* and *A. leiostachyum*. A few bushes of *Nit-raria schoberi* and *Rhagodia* sp. are scattered around the lake and the surrounding country is vegetated with semi-arid wattle scrub consisting mainly of *Acacia sclerosperma*, *A. victoriae*, *A. tetra-gonophylla* and *A. coriacea*. Near the lake, the vegetation is rather open, there being areas of bare ground because of sheep grazing. Some of the smaller lakes are extensively overgrown with *Typha* rush.

SPECIES LIST

- Hoary-headed Grebe—2.iv.62.
 White-faced Heron—2.iv.62; 14.xi.64 (ca 7); 19.xii.65 (10).
 White-necked Heron—19.xii.65 (1).
 Straw-necked Ibis—2.iv.62; 14.xi.64 (2); 15.xi.64 (2); 19.xii.65 (4).
 Glossy Ibis—14.xi.64 (1); 15.xii.64 (1); 19.xii.64 (1); 19.xii.65 (4).
 Black Swan—2.iv.62; 14.xi.64 (2); 15.xii.64 (2).
 Mountain Duck—31.i.59; 2.iv.62; 14.xi.64 (27); 15.xii.64 (2); 19.xii.64 (12); 19.xii.65 (8).
 Black Duck—31.i.59; 2.iv.62; 14.xi.64 (20); 15.xii.64 (50); 19.xii.65 (82).
 Grey Teal—31.i.59; 2.iv.62; 14.xi.64 (25); 15.xii.64 (160); 19.xii.65 (86).
 Blue-winged Shoveller—2.iv.62.
 Pink-eared Duck—15.xi.64 (2); 19.xii.65 (8).
 Swamp Harrier—15.xi.64 (1).
 Spotted Crane—2.iv.62; 14.xi.64 (2); 15.xii.64 (ca 7); 19.xii.64 (ca 7); 19.xii.65 (ca 20).
 Coot—19.xii.65 (10).
 Black-tailed Native Hen—31.i.59; 14.xi.64 (50); 15.xii.64 (24); 19.xii.65 (3).
 Banded Plover—14.xi.64 (7); 15.xii.64 (4).
 Eastern Golden Plover—19.xii.65 (2).
 Red-capped Dotterel—31.i.59; 2.iv.62; 14.xi.64; 15.xii.64 (8); 19.xii.64 (14); 19.xii.65 (17).
 Black-fronted Dotterel—31.i.59; 2.iv.62; 14.xi.64; 15.xii.64 (2); 19.xii.64 (2); 19.xii.65 (3).
 Red-kneed Dotterel—31.i.59; 14.xi.64; 15.xii.64 (15); 19.xii.64; 19.xii.65 (9).
 Black-tailed Godwit—14.xi.64 (1); 15.xi.64 (1); 15.xii.64 (1); 19.xii.65 (2).
 Wood Sandpiper—31.i.59 (11); 2.iv.62 (5); 14.xi.64 (50); 15.xi.64 (30); 15.xii.64 (19).
 Grey-tailed Tattler (?)—19.xii.65 (2).
 Common Sandpiper—31.i.59; 2.iv.62 (1); 14.xi.64 (2); 19.xii.64 (1); 19.xii.65 (2).
 Greenshank—31.i.59; 2.iv.62; 14.xi.64 (8); 19.xii.64 (6); 19.xii.65 (2); 20.xii.65 (5).
 Marsh Sandpiper—14.xi.64 (2); 15.xi.64 (2); 15.xii.64 (1); 19.xii.64 (2); 19.xii.65 (10).
 Sharp-tailed Sandpiper—31.i.59 (11); 14.xi.64 (20); 15.xii.64 (60); 19.xii.64 (60); 20.xii.65 (41).
 Curlew Sandpiper—31.i.59 (3); 21.iv.62 (1); 14.xi.64 (10); 15.xii.64 (3).
 Red-necked Stint—31.i.59; 2.iv.62; 14.xi.64 (30); 15.xii.64 (44); 19.xii.65 (2); 20.xii.65 (11).
 Ruff—14.xi.64 (1); 15.xi.64 (1).
 White-headed Stilt—31.i.59; 2.iv.62; 14.xi.64 (50); 15.xii.64 (60); 19.xii.65 (124).
 Banded Stilt—14.xi.64 (40); 15.xii.64 (40); 19.xii.65 (1).
 Red-necked Avocet—31.i.59; 2.iv.62; 14.xi.64 (2); 15.xii.64 (26); 19.xii.65 (8).
 Oriental Pratincole—14.xi.64 (2); 15.xi.64 (1); 19.xii.64 (2); 19.xii.65 (1).
 Silver Gull—31.i.59; 2.iv.62; 14.xi.64 (7); 15.xii.64 (50); 19.xii.65 (24).
 Marsh Tern—31.i.59; 14.xi.64 (1); 15.xii.64 (1); 19.xii.64 (1); 19.xii.65 (2).
 Gull-billed Tern—31.i.59 (2).
 Little Grassbird—2.iv.62; 14.xi.64; 15.xii.64; 19.xii.64; 19.xii.65.
 Reed Warbler—2.iv.62; 14.xi.64; 15.xii.64; 19.xii.64; 19.xii.65.

Spotted Crane, *Porzana fluminea*

Crakes were heard calling in the *Typha* and *Samolus* on nearly all visits but were not specifically identified until November 14, 1964, when several were seen feeding on mudflats near a dense patch of rushes. A specimen (W.A. Museum no. A9482) was collected on December 15, 1964. An old nest was found in the *Samolus* on April 2, 1962, indicating that the species breeds at the locality. These records extend the known range of the population in south-western Australia northwards from Hutt Lagoon and Uteha Swamp, Balline (J. Ford, *The Emu*, 62, 1962: 61). That the species is narrowly dis-

tributed along the north-west coast northwards from Hamelin Pool is indicated by a specimen (A9405) collected by Gwendoline Walsh at Onslow on August 13, 1963. The Eighty Mile Beach and Great Sandy Desert probably operate as a distributional barrier between the north-west and the Kimberley Division where a population of the Spotted Crake was recently discovered by P. Slater (Serventy and H. M. Whittell, loc. cit., p. 173).

As demonstrated by the following table of measurements (in mm.) of specimens in the W.A. Museum, the specimen from Hamelin Pool is of similar dimensions to those from the more humid South-West corner. This is not unexpected in view of the species' nomadic behaviour. There is no variation in colour.

No.	Sex	Location	Date	Wing	Exp. cul.	Tail	Tarsus
A2626	♂	Moora	27.xii.1923	95	22	48.5	28
A6816	♂	Warooka	1.ii.1951	97	20	51	30
A8747	♂	Hutt Lagoon	31.viii.1961	98	22	51	31
A9382	♂	Beverley	26.iv.1964	97.5	21	47.5	30.5
A9405	♀	Onslow	13.viii.1963	98	18.5	55.5	28.5
A9482	♂	Hamelin Pool	15.xii.1964	95	21	53	29

Marsh Sandpiper, *Tringa stagnatilis*

This species has been recorded only twice in Western Australia south of the Kimberley Division, viz., at Jandakot Lake (K. Buller, *W. Aust. Nat.*, 2, 1950: 120), and Lake Cooloongup (J. Ford, *The Emu*, 57, 1957: 353). On November 14-15, 1964, two birds were seen quietly standing and feeding in the water and a specimen was collected. Details of the specimen are: W.A. Museum no. A9465; female with unconvoluted oviduct; legs, pale olive green; bill, black, paler near base of upper mandible; weight, 69 g.; right wing, 137 mm.; left wing, 139; culmen, 39.5; tarsus, 49.5; tail, 57. The legs were trailed slightly behind the tail in flight and the white extending from the rump onto the back was noticeable in the field. Its call was much fainter than that of the Greenshank (*T. nebularia*) and was syllabised as *chee-ow*. A flock of ten birds was present on December 19-20, 1965.

Ruff, *Philomachus pugnax*

D. Fisher (*W. Aust. Nat.* 9, 1963:90) reported the occurrence of a female Ruff (or Reeve) at the Lower King River, Albany, in October, 1963. This record constituted the first for Western Australia and the second for Australia, a female specimen having also been taken at Pt. Gawler, South Australia, in January 1962 (A. McEvey, *The Emu*, 63, 1963: 35). On November 14-15, 1964, a bird was seen feeding with a flock of about 20 Sharp-tailed Sandpipers (*Erolia acuminata*) and several other waders at the fresh water lake near the Hamelin Pool Station homestead. Unfortunately I could not confirm the record by collecting the individual though all the field characteristics for distinguishing it from the Sharp-tailed Sandpiper were noted both by John Dell and myself. I first differentiated the Ruff from the Sharp-tailed Sandpipers on the basis of its more upright posture and slightly longer and more

slender neck. It was larger than the Sharp-tailed Sandpiper and about the same size as a Wood Sandpiper (*Tringa glareola*). No eyebrow line nor rufous on the head were evident. When flushed from the ground, it showed more white on the sides of the rump (cf. H. F. Witherby, *et al*, 1947 *Handbook of British Birds*, p. 281) and, significantly, it frequently separated from the other sandpipers when on the wing. The feathers on the back were more sharply marked, being blackish and brown with clear buff edges. The chest appeared to be an even greyish brown with no striations nor flecking. The bird did not call. It fed in shallow water and on mudflats with the sharp-tailed species.

Oriental Pratincole, *Glareola pratincola*

Two birds were seen resting on bare open ground near the lake on November 14 and December 19, 1964. Identification was based on the pure white tail and coverts, the black line across the breast, the deeply forked long tail, and the short legs. A solitary bird (W.A. Museum No. A9560) was collected on December 19, 1965. The previous southern limit of this migrant in Western Australia was Point Cloates (Serventy and Whittell, loc. cit., p. 209) where it was recorded by T. Carter (*The Emu*, 3, 1904: 175).

FIELD AND STUDY

Movements of the White-fronted Honeyeater.—On April 8th, we drove 19 miles south of Zanthus on the Balladonia Road. At a soak here, while we camped to eat, this species flew over, moving from south-west to north-east. For over an hour birds flitted over, flying in short spurts, pausing to perch, then moving on. They did not associate with each other but passed over at about one per second.

The next day, just north of Zanthus, the same species was moving in similar fashion in a corridor about 200 yards wide, from east to west. They were observed at 10 a.m., 11 a.m. and again at 3 p.m., with no lessening of numbers. The next morning the exodus was still in unabated progress.

At Queen Victoria Spring in October of last year, this was the most plentiful bird, but on a visit made on April 11th, 1966, only occasional birds were seen. A few are always to be seen around Zanthus, though numbers swell many times over in the blossoming times.

—ROGER H. SMITH, Zanthus.

Grey Kangaroos near Wiluna.—On the 27th January, 1966, at South Well, Altona Station, 70 miles on a bearing approximately S. by S.S.W. from Wiluna, two grey kangaroos (*Macropus kangaroo*), an adult male and an adult female, were fortuitously captured in the course of a study of the red kangaroo (*Megaleia rufa*). The two specimens were found in a state of light narcosis within a few yards of each other and had apparently been in company prior to succumbing to the narcotic. The narcotic was administered as a solu-